

## ABSTRACT OF THE DISCLOSURE

Disadvantages of conventional image processing devices using a vector error diffusion method include the generation of periodic texture noise of specific selected colors, resulting in marked reduction of graininess. A noise overlay unit is provided as a front stage of an error adding unit for adding error to input image data. If noise is superimposed on the L\*a\*b\* color space or L\*C\*h color space, quantitative image evaluation matching human perception is possible, and overlay noise can be effectively optimized. If the total sum of the absolute amount of overlay noise is zero, the color tone of the entire image can be maintained.